PLASMID

A Journal Focused on Extrachromosomal Gene Systems and Mobile Genetic Elements in Prokaryotes and Eukaryotes

Volume 24 • 1990

EDITORS-IN-CHIEF

Richard D. Kolodner

Francis L. Macrina

ACADEMIC PRESS, INC.

Harcourt Brace Jovanovich, Publishers

San Diego New York Boston

London Sydney Tokyo Toronto

Copyright © 1990 by Academic Press, Inc.

All rights reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (27 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U. S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1990 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0147-619X/90 $3.00

MADE IN THE UNITED STATES OF AMERICA

Contents of Volume 24

Number 1, July 1990

Regular Articles

M. K. Ashby and P. L. Bergquist. Cloning and Sequence of IS1000, a Putative Insertion Sequence from *Thermus thermophilus* HB8 1

Eva M. Steinberger, Guo-Ying Cheng, and Steven V. Beer. Characterization of a 56-kb Plasmid of *Erwinia amylovora* Ea322: Its Noninvolvement in Pathogenicity 12

Maia Kivisaar, Rita Hõrak, Lagle Kasak, Ain Heinaru, and Jaan Habicht. Selection of Independent Plasmids Determining Phenol Degradation in *Pseudomonas putida* and the Cloning and Expression of Genes Encoding Phenol Monooxygenase and Catechol 1,2-Dioxygenase 25

Margaret E. Silliker and Donald J. Cummings. A Mitochondrial DNA Rearrangement and Three New Mitochondrial Plasmids from Long-Lived Strains of *Podospora anserina* 37

Michael W. Mather and James A. Fee. Plasmid-Associated Aggregation in *Thermus thermophilus* HB8 45

Karen Munkenbeck Trotter and Gary M. Dunny. Mutants of *Enterococcus faecalis* Deficient as Recipients in Mating with Donors Carrying Pheromone-Inducible Plasmids 57

F. Kay Panchmatia, Elizabeth M. Cramb, Vincent Li, Frances L. Allen, Barry W. Glickman, and Mary M. Y. Waye. An M13 Vector Library for Cloning DNA with Four Nucleotide 3′ Overhangs 68

Short Communication

Deborah F. Balson and William V. Shaw. Nucleotide Sequence of the *rep* Gene of Staphylococcal Plasmid pCW7 74

Number 2, September 1990

Regular Articles

Finbarr Hayes, Jean Law, Charles Daly, and Gerald F. Fitzgerald. Integration and Excision of Plasmid DNA in *Lactococcus lactis* subsp. *lactis* 81

Tadashi Matsunaga, Kazufumi Tsubaki, Hideaki Miyashita, and J. Grant Burgess. Chloramphenicol Acetyltransferase Expression in Marine *Rhodobacter* sp. NKPB 0021 by Use of Shuttle Vectors Containing the Minimal Replicon of an Endogenous Plasmid 90

C. Jeffrey Smith, Anita Parker, and Marc B. Rogers. Plasmid Transformation of *Bacteroides* spp. by Electroporation 100

P. W. Caufield, G. Shah, S. K. Hollingshead, M. Parrot, and M. C. Lavoie. Evidence That Mutacin II Production Is not Mediated by a 5.6-kb Plasmid in *Streptococcus mutans* 110

Annemarie Graus-Göldner, Hans Graus, Toni Schlacher, and Gregor Högenauer. The Sequences of Genes Bordering *oriT* in the Enterotoxin Plasmid P307: Comparison with the Sequences of Plasmids F and R1 119

Baoquan Zhu, Jerzy Madoń, Alex Häusler, and Ralf Hütter. Amplification on the *Amycolatopsis (Nocardia) mediterranei* Plasmid pMEA100: Sequence Similarities to Actinomycete *att* Sites 132

Short Communications

Wade H. Bingle and John Smit. High-Level Expression Vectors for *Caulobacter crescentus* Incorporating the Transcription/Translation Initiation Regions of the Paracrystalline Surface-Layer-Protein Gene 143

Xing-Mai Jiang, Lajwant K. Romana, and Peter Reeves. The Use of a Drug Resistance Cartridge for *in Vitro* Insertion and Deletion Mutagenesis of a Cosmid Clone 149

Kevin Dybvig and Mahnaz Khaled. Isolation of a Second Cryptic Plasmid from *Mycoplasma mycoides* subsp. *mycoides* 153

Don B. Clewell, Linda T. Pontius, Florence Y. An, Yasuyoshi Ike, Akinori Suzuki, and Jiro Nakayama. Nucleotide Sequence of the Sex Pheromone Inhibitor (iAD1) Determinant of *Enterococcus faecalis* Conjugative Plasmid pAD1 ... 156

Number 3, November 1990

Review

John Grinsted, Fernando De La Cruz, and Rüdiger Schmitt. The Tn*21* Subgroup of Bacterial Transposable Elements 163

Regular Articles

Mahvash Khosravi, Dale A. Webster, and Benjamin C. Stark. Presence of the Bacterial Hemoglobin Gene Improves α-Amylase Production of a Recombinant *Escherichia coli* Strain 190

Martin B. Slade, Andy C. M. Chang, and Keith L. Williams. The Sequence and Organization of Ddp2, a High-Copy-Number Nuclear Plasmid of *Dictyostelium discoideum* 195

Andy C. M. Chang, Martin B. Slade, and Keith L. Williams. Identification of the Origin of Replication of the Eukaryote *Dictyostelium discoideum* Nuclear Plasmid Ddp2 208

MARCELO E. TOLMASKY. Sequencing and Expression of *aadA*, *bla*, and *tnpR* from the Multiresistance Transposon Tn*1331* 218

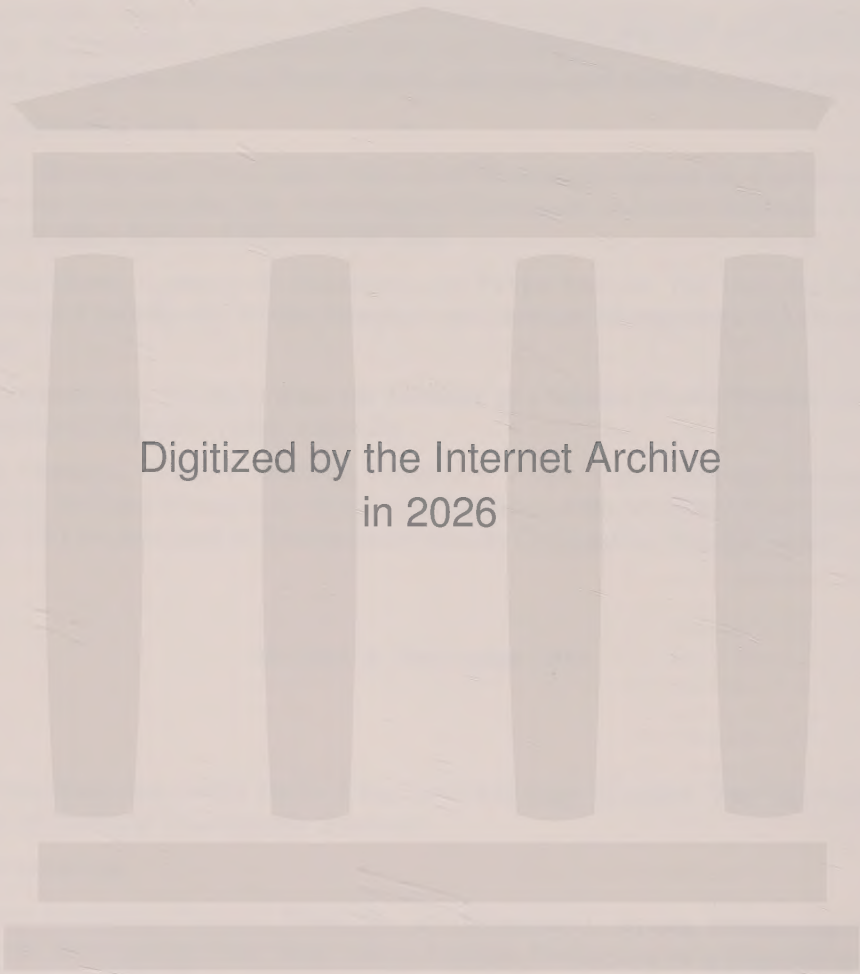
CATHERINE DE MEIRSMAN, CAROLIEN VAN SOOM, CHRISTEL VERRETH, AUGUST VAN GOOL AND JOS VANDERLEYDEN. Nucleotide Sequence Analysis of IS*427* and Its Target Sites in *Agrobacterium tumefaciens* T37 227

SHORT COMMUNICATION

G. LABES AND R. SIMON. Isolation of DNA Insertion Elements from *Rhizobium meliloti* Which Are Able to Promote Transcription of Adjacent Genes 235

AUTHOR INDEX FOR VOLUME 24 240

CUMULATIVE SUBJECT INDEX FOR VOLUMES 23 AND 24 241



Digitized by the Internet Archive
in 2026

https://archive.org/details/plasmid_1990_24_contents

Instructions to Authors

The primary content of the Journal consists of reports of original research into the biology of extrachromosomal gene systems and mobile genetic elements in both prokaryotic and eukaryotic organisms including their biological behavior, their molecular structure and genetic function, their gene products, and their use as genetic tools.

Plasmid encourages the preparation of both minireviews and short, focused review articles in active areas of research involving extrachromosomal gene systems and mobile genetic elements. Such articles may be at the request of the Editors-in-Chief or, alternatively, authors may submit a short proposal for such a review to the Editors-in-Chief.

Manuscripts should be written in clear, concise, and grammatical English and should be submitted in triplicate (one original and two photocopies), including three sets of figures, to:

Plasmid
Editorial Office
Seventh Floor
1250 Sixth Avenue
San Diego, California 92101
Telephone: (619) 230-1840

Failure to receive the required number of copies of the manuscript may delay review. All copies of halftone artwork *must* be glossy prints or originals; photocopies of halftones do not show sufficient detail to be used for the review process.

Authors may suggest assignment to an editor or one of the Editors-in-Chief at the time of manuscript submission. Authors outside North America may elect to submit manuscripts directly to an appropriate member of the Editorial Board.

Original papers only will be considered. Manuscripts are accepted for review with the understanding that the same work has not been published and is not being considered for publication elsewhere, and that its submission for publication has been approved by all of the authors and by the institution where the work was carried out; further, that any person cited as a source of personal communications has approved such citation. Written authorization may be required at the Editors' discretion. Articles and any other material published in *Plasmid* represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editors and the Publisher.

Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the Publisher. The Publisher will not refuse any reasonable request by the author for permission to reproduce any of his or her contributions to the journal.

Form of manuscript. Manuscripts should be typewritten with wide margins on high-quality bond paper, using double or triple spacing throughout. Subdivision of articles into Abstract, Introduction, Materials and Methods, Results, Discussion, Acknowledgments, and References is recommended. The manuscript must begin with an Abstract. In the Methods section, authors should draw attention to any particular chemical or biological hazards that may be involved in carrying out the experiments described. Any relevant safety precautions should be described; if an accepted code of practice has been followed, a reference to the relevant standards should be given. Reviews of the literature should be restricted to closely pertinent papers. Tables, figures, names, quotations, and bibliography (and all text references to the same) should be carefully checked for errors. A proposed running head of no more than 37 characters should be included.

Figures and tables. Number all figures consecutively with Arabic numbers and give each one a descriptive legend. All illustrations should be submitted in such form as to permit photographic reproduction without retouching or redrawing. Line drawings should be professionally drafted and planned to fit the proportions of the printed page ($5^1/_2 \times 8$ inches; column width, $2^1/_2$ inches). Lettering on drawings should be large enough to take a reduction of 50 to 60%.

Photographs should be submitted as glossy prints and not marred by staples, paper clips, or pencil marks. The photographs should be cropped to eliminate background material so that reproduction might be possible without reduction. Grouping of photographs should be indicated. For best reproduction provide clear, sharp photographs with adequate contrast. The best results will be obtained if authors match the contrast and density of all figures appearing on a single plate. If this is not possible, please provide unmounted original art. Providing an overlay that indicates the most critical areas of micrographs will also aid in ensuring high-quality reproduction. Illustrations in color can be accepted only if the authors defray the cost.

With respect to halftone prints, authors are reminded that they are responsible for ensuring that the quality of the print is sufficient to ensure clear reproduction. This refers especially to photographs of gels and electron micrographs. In case of doubt, Academic Press will be happy to provide advice.

Tables should be typed on separate pages, numbered consecutively, with Arabic numbers, and collected at the end of the manuscript. All tables must have descriptive headings and should be understandable without reference to the text. Footnotes to tables should be typed directly beneath the tables.

References. Names of authors should be mentioned in the text with the year of publication in parentheses. References should be listed alphabetically at the end of the paper as follows:

ENNS, R. E., GARLAND, A. M., AND SMITH, D. W. (1986). M13-*ori C* cloning vehicles: Use for amplification of high copy lethal (HCL) genetic elements. *Plasmid* **15,** 147–155.

MESSING, J. (1983). New M13 vectors for cloning. *In* "Methods in Enzymology" (R. Wu, L. Grossman, and K. Moldave, eds.), Vol. 101, pp. 20–78. Academic Press, Orlando, FL.

The names of journals should be abbreviated according to the *Chemical Abstracts Service Source Index,* 1985.

Include in the reference list articles that are "in press," but incorporate in text or use footnotes for "manuscripts in preparation," "unpublished observations," and "personal communications."

Abbreviations and symbols. The author is asked to follow the usage established by "A Proposal for a Uniform Nomenclature in Bacterial Genetics" (Demerec *et al., Genetics* **54,** 61, 1966); and "Uniform Nomenclature for Bacterial Plasmids: A Proposal" (Novick *et al., Bacteriol. Rev.* **40,** 168, 1975). Abbreviations for units should follow the Système Internationale.

Nomenclature of microorganisms. Binomial Latin names, with authorities, should be used in accordance with the International Rules of Nomenclature. Binomials should be underlined in the typewritten copy. A specific name should not be used without an accompanying capitalized generic name. The generic name for each species should be written in full where it first occurs in the text, and again in the summary. Where the generic name appears frequently in the text it may be abbreviated by using the initial letter.

Short Communications. This section is open to short preliminary reports of important findings. They should not exceed 1000 words of text. Do not use any section headings except Acknowledgments and References. All Short Communications must have abstracts. Illustrative material should be kept to a minimum (usually not more than one table or figure).

Plasmid publishes physical and genetic maps of important plasmids and related elements. Manuscripts should be in the form of a short communication and should include a brief description of the element, a paragraph mentioning any special methods used, and another outlining the mapping strategy. A detailed description of the experiments should be provided with the manuscript. This will be made available to reviewers and will be filed by the editor-in-chief for future reference by interested parties. Its existence will be noted in the manuscript.

This section does not provide an accelerated means of publication, but is designed to offer the opportunity to present in brief form noteworthy results of works in progress.

Proofs. Proofs will be sent to the corresponding author with a reprint order form. Authors will be charged for excessive alterations.

Reprints. Fifty copies of each article are granted free of charge and authors may order additional quantities using the reprint order form provided with the proofs.